REMARKS

Claims 1-32 are pending and rejected in this application. Claims 1, 9, 18 and 27 are amended hereby.

Responsive to the rejection of claims 1-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,436,241 (Persson et al.), Applicant has amended claims 1, 9, 18 and 27 and submit that claims 1-32 are now in condition for allowance.

Persson et al. disclose a suction roll seal strip with wear indicator (Fig. 1) for indicating wear of the seal strip. The indicator is arranged to continuously give a measure of a remaining wear allowance and preferably also a wear rate of the seal strip (Abstract). There may be a level indicator, preferably of the potentiometer type, which is arranged to measure the position of a fixed point at or in the seal strip. Thereby, the level indicator continuously shows how the seal strip is displaced upwards as the wearing takes place, whereby the displacement and thereby also the value measured by the level indicator may indirectly and continuously give a measure of the remaining allowance (column 2, line 65 through column 3, line 7). Inflatable tubes 4 of an extensible material, such as a polymeric material, are arranged between seal strip 1 and profile 3. When seal strip 1 is new, tubes 4 are collapsed. A transmitter 5, which is only shown schematically, operates according to the reluctance method in this embodiment based on measurements of magnetic resistance. Transmitter 5 is arranged to measure the distance between mantle surface 2a and a surface 6 of transmitter 5. Transmitter 5 is arranged in surface 6 and includes a core 7, about which two coils 8 and 9 are arranged. Coils 8 and 9 are fed a current to make them operate in opposite directions. When the distance between surfaces 6 and 2a is altered, following the wearing of seal strip 1, the reluctance for the part of transmitter 5, which is being fed from coil 8, is altered, whereby current flow through direct current meter 10 arises. A current generator alters the current feed to coil 8 so that the resulting flow through direct current

meter 10 becomes equal to zero again. The output measure, which is a measure of the difference between two currents in coils 8 and 9 will continuously be proportional to the distance between surface 6 and surface 2a (column 4, lines 8-59).

In contrast, claim 1 as amended, recites in part:

> at least one sensor not connected to said seal strip and being positioned in association with at least one corresponding said target ...

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Persson et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Persson et al. discloses a suction roll seal strip having a wear indicator. Persson et al. teaches the measuring of a distance from an underneath portion of the seal to the suction roll. The Examiner has indicated that measuring the position of a target is indirectly a measure of the position of the seal relative to the holder, since the seal is included in the holder. Persson et al. does not teach the presence of a target carried by the seal. Further, the indirect measure of the position of a seal relative to the holder is not equivalent to a direct measure of the position of the seal, by way of the attached target, as in Applicant's invention, because any eccentricity or abnormality in the rotating mantel would not be detected by the apparatus of Persson et al. While the Examiner has argued that the arrangement to measure the position of a fixed point at or in the seal strip discloses Applicant's invention, Persson et al. describes a fixed point at or in the seal as a measure between the fixed point of the surface of transmitter 5 and the mantel surface. The actual position of transmitter 5 within the seal strip is a fixed point at or in the seal strip, but Persson et al. does not disclose a sensor apart from the seal strip as is now claimed in Applicant's invention. Applicant's invention measures the distance a seal extends from a holder by utilizing a non-contact proximity sensor and does not depend upon imbalances of electrical current in a

balanced coil configuration of Persson et al. The sensor of Persson et al. is contained within the seal strip itself or is attached thereto and moves with the seal strip. Further, the Examiner has indicated that even if the reference did not teach a relative measure between the strip and the holder that it would have been obvious to one of ordinary skill in the art to measure the strip displacement from its original position. Applicant has shown above that the cited references do not teach a measure between a sensor not attached to the strip and a target on the strip. The positioning of the sensor of Persson et al. apart from the seal strip would not allow the detection of wear of the seal strip, since it would not move with the seal strip to cause a variation of current in the sensor. So the positioning of the sensor is not a matter of an obvious design choice as indicated in the Office Action. Further, the sensor of Persson et al. is dependent upon an alteration of a magnetic field by the material in the mantel as the transmitter approaches the mantel; this speaks to a required interaction to make the device of Persson et al. work. This is in contrast to Applicant's invention that places a target on the seal strip and a senor that is apart from the seal strip to measure the position and thus movement of the seal strip. Therefore, Persson et al. and any of the other cited references, alone or in combination fail to disclose, teach or suggest at least one sensor not connected to said seal strip and being positioned in association with at least one corresponding target, as recited in claim 1.

An advantage of Applicant's invention is that the sensor is not a part of the wear strip thereby reducing the cost of the wear strip assembly. Another advantage of the present invention is that it measures the extension of the seal strip, which advantageously provides information on any eccentricity or abnormality of the suction roll. For the foregoing reasons, Applicant submits that claim 1 and claims 2-8, 31 and 32 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 9 as amended, recites in part:

> at least one sensor positioned apart from said seal strip and being in association with at least one corresponding said target ...

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Persson et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Persson et al. discloses a suction roll seal strip having a wear indicator. Persson et al. teaches the measuring of a distance from an underneath portion of the seal to the suction roll. The Examiner has indicated that measuring the position of a target is indirectly a measure of the position of the seal relative to the holder, since the seal is included in the holder. Persson et al. does not teach the presence of a target carried by the seal. Further, the indirect measure of the position of a seal relative to the holder is not equivalent to a direct measure of the position of the seal, by way of the attached target, as in Applicant's invention, because any eccentricity or abnormality in the rotating mantel would not be detected by the apparatus of Persson et al. While the Examiner has argued that the arrangement to measure the position of a fixed point at or in the seal strip discloses Applicant's invention, Persson et al. describes a fixed point at or in the seal as a measure between the fixed point of the surface of transmitter 5 and the mantel surface. The actual position of transmitter 5 within the seal strip is a fixed point at or in the seal strip, but Persson et al. does not disclose a sensor apart from the seal strip as is now claimed regarding Applicant's invention. Applicant's invention measures the distance a seal extends from a holder by utilizing a non-contact proximity sensor and does not depend upon imbalances of electrical current in a balanced coil configuration of Persson et al. The sensor of Persson et al. is contained within the seal strip itself or is attached thereto and moves with the seal strip. Further, the Examiner has indicated that even if the reference did not teach a relative measure between the strip and the holder that it would have been obvious to one of ordinary skill in the art to measure

the strip displacement from its original position. Applicant has shown above that the cited references do not teach a measure between a sensor not attached to the strip and a target on the strip. The positioning of the sensor of Persson et al. apart from the seal strip would not allow the detection of wear of the seal strip, since it would not move with the seal strip to cause a variation of current in the sensor. So the positioning of the sensor is not a matter of an obvious design choice as claimed in the Office Action. Further, the sensor of Persson et al. is dependent upon an alteration of a magnetic field by the material in the mantel as the transmitter approaches the mantel; this speaks to a required interaction with the mantel to make the device of Persson et al. work. This is in contrast to Applicant's invention that places a target on the seal strip and a senor that is apart from the seal strip to measure the position and thus movement of the seal strip to which the target is attached. Therefore, Persson et al. and any of the other cited references, alone or in combination fail to disclose, teach or suggest at least one sensor positioned apart from said seal strip and being in association with at least one corresponding target, as recited in claim 9.

An advantage of Applicant's invention is that the sensor is not a part of the wear strip thereby reducing the cost of the wear strip assembly. Another advantage of the present invention is that it measures the extension of the seal strip, which advantageously provides information on any eccentricity or abnormality of the suction roll. For the foregoing reasons, Applicant submits that claim 9 and claims 10-17 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In yet further contrast, claim 18 as amended, recites in part:

> at least one sensor positioned <u>apart from said seal strip</u> and being in association with at least one corresponding said target ...

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Persson et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Persson et al. discloses a suction roll seal strip having a wear indicator. Persson et al. teaches the measuring of a distance from an underneath portion of the seal to the suction roll. The Examiner has indicated that measuring the position of a target is indirectly a measure of the position of the seal relative to the holder, since the seal is included in the holder. Persson et al. does not teach the presence of a target carried by the seal. Further, the indirect measure of the position of a seal relative to the holder is not equivalent to a direct measure of the position of the seal, by way of the attached target, as in Applicant's invention, because any eccentricity or abnormality in the rotating mantel would not be detected by the apparatus of Persson et al. While the Examiner has argued that the arrangement to measure the position of a fixed point at or in the seal strip discloses Applicant's invention, Persson et al. describes a fixed point at or in the seal as a measure between the fixed point of the surface of transmitter 5 and the mantel surface. The actual position of transmitter 5 within the seal strip is a fixed point at or in the seal strip, but Persson et al. does not disclose a sensor apart from the seal strip as is now claimed regarding Applicant's invention. Applicant's invention measures the distance a seal extends from a holder by utilizing a non-contact proximity sensor and does not depend upon imbalances of electrical current in a balanced coil configuration of Persson et al. The sensor of Persson et al. is contained within the seal strip itself or is attached thereto and moves with the seal strip. Further, the Examiner has indicated that even if the reference did not teach a relative measure between the strip and the holder that it would have been obvious to one of ordinary skill in the art to measure the strip displacement from its original position. Applicant has shown above that the cited references do not teach a measure between a sensor not attached to the strip and a target on the

strip. The positioning of the sensor of Persson et al. apart from the seal strip would not allow the detection of wear of the seal strip, since it would not move with the seal strip to cause a variation of current in the sensor. So the positioning of the sensor is not a matter of an obvious design choice as claimed in the Office Action. Further, the sensor of Persson et al. is dependent upon an alteration of a magnetic field by the material in the mantel as the transmitter approaches the mantel; this speaks to a required interaction with the mantel to make the device of Persson et al. work. This is in contrast to Applicant's invention that places a target on the seal strip and a senor that is apart from the seal strip to measure the position and thus movement of the seal strip to which the target is attached. Therefore, Persson et al. and any of the other cited references, alone or in combination fail to disclose, teach or suggest at least one sensor positioned apart from said seal strip and being in association with at least one corresponding target, as recited in claim 18.

An advantage of Applicant's invention is that the sensor is not a part of the wear strip thereby reducing the cost of the wear strip assembly. Another advantage of the present invention is that it measures the extension of the seal strip, which advantageously provides information on any eccentricity or abnormality of the suction roll. For the foregoing reasons, Applicant submits that claim 18 and claims 19-26 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In still further contrast, claim 27 as amended, recites in part:

> positioning a sensor <u>apart from said seal strip</u> and in association with at least one corresponding said target ...

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Persson et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Persson et al. discloses a suction roll seal strip having a wear indicator. Persson et al. teaches the measuring of a distance from an underneath portion of the seal to the suction roll. The Examiner has indicated that measuring the position of a target is indirectly a measure of the position of the seal relative to the holder, since the seal is included in the holder. Persson et al. does not teach the presence of a target carried by the seal. Further, the indirect measure of the position of a seal relative to the holder is not equivalent to a direct measure of the position of the seal, by way of the attached target, as in Applicant's invention, because any eccentricity or abnormality in the rotating mantel would not be detected by the apparatus of Persson et al. While the Examiner has argued that the arrangement to measure the position of a fixed point at or in the seal strip discloses Applicant's invention, Persson et al. describes a fixed point at or in the seal as a measure between the fixed point of the surface of transmitter 5 and the mantel surface. The actual position of transmitter 5 within the seal strip is a fixed point at or in the seal strip, but Persson et al. does not disclose a sensor apart from the seal strip as is now claimed regarding Applicant's invention. Applicant's invention measures the distance a seal extends from a holder by utilizing a non-contact proximity sensor and does not depend upon imbalances of electrical current in a balanced coil configuration of Persson et al. The sensor of Persson et al. is contained within the seal strip itself or is attached thereto and moves with the seal strip. Further, the Examiner has indicated that even if the reference did not teach a relative measure between the strip and the holder that it would have been obvious to one of ordinary skill in the art to measure the strip displacement from its original position. Applicant has shown above that the cited references do not teach a measure between a sensor not attached to the strip and a target on the strip. The positioning of the sensor of Persson et al. apart from the seal strip would not allow the detection of wear of the seal strip, since it would not move with the seal strip to cause a variation of current in the sensor. So the positioning of the sensor is not a matter of an obvious design

choice as claimed in the Office Action. Further, the sensor of Persson et al. is dependent upon an alteration of a magnetic field by the material in the mantel as the transmitter approaches the mantel; this speaks to a required interaction with the mantel to make the device of Persson et al. work. This is in contrast to Applicant's invention that places a target on the seal strip and a senor that is apart from the seal strip to measure the position and thus movement of the seal strip to which the target is attached. Therefore, Persson et al. and any of the other cited references, alone or in combination fail to disclose, teach or suggest the step of positioning a sensor apart from a seal strip and in association with at least one corresponding target, as recited in claim 27.

An advantage of Applicant's invention is that the sensor is not a part of the wear strip thereby reducing the cost of the wear strip assembly. Another advantage of the present invention is that it measures the extension of the seal strip, which advantageously provides information on any eccentricity or abnormality of the suction roll. For the foregoing reasons, Applicant submits that claim 27 and claims 28-30 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicant submits that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicant respectfully requests withdrawal of all rejections and allowance of the claims.

In the event Applicant has overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby conditionally petitions therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

Todd T. Taylor
Registration No. 36,945

Attorney for Applicant

TTT6/bd

TAYLOR & AUST, P.C.
142 S. Main Street
P.O. Box 560
Avilla, IN 46710
Telephone: 260-897-3400
Facsimile: 260-897-9300

Enc.: Return postcard

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Name of Registered Representative

Signature

April 6, 2006
Date